39. Which of the following is an Open-Close principle's implication?<108>  
a. Combine interface and implementation  
b. Maximize the use of global variables  
**c. Keep attributes private**

54. Which of the following is not an Open-Closed principle's implication?<108>  
**a. Feel free to change software code**  
b. Separate interface and implementation  
c. Minimized the used of global variables  
d. Keep attribute private

59. Which of the following is Open-Closed principle?<107>  
a. Open to modification, Close to extension  
b. Open to modification  
c. Close to modification  
**d. Open to extension, Close to modification**

69. Which of the following is an Open-Close principle's implication?<108>  
a. Keep attributes public  
**b. Separate interface and implementation**   
c. Maximize the use of global variables

58. Abstraction via inheritance is one effective way to achieve the open-close principle  
**a. True**  
b. False

1. Activity diagrams are used to support......<61, 64>  
   **a. The process view**   
   b. The logical view  
   c. The physical view

9. Activity diagrams are used to support the process view. **T**

3. Which of the following is advantage of broker architecture?<228, 229>  
**a. Changeability and extensibility**   
b. low fault-tolerance  
c. inefficiency  
d. difficultly to testing

RMI is an example of the broker architecture| b. True

Which of the following is NOT the benefit of Broker architecture style?| a. Easy in testing

89. In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style?  
a. Client  
**b. Client-side proxy**c. Broker  
d. Server  
e. Server-side proxy

CORBA is an example of the broker architecture.| True.

\*In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | E. Skeleton

The benefit of the broker architecture | All of the (Simplicity for clients, Changeability and extensibility, Server component implementation)

QN=49 (10562)Which of the following is the most important quality attribute of Broker architecture style? | Better decoupling between clients and servers

CORBA is a good implementation example of\_\_\_ | Broker Architecture

In broker architecture, What is the responsibility of stub? | Mediates between the client and the broker and provides additional transparency between them.

80. Sequence diagram are used to support\_\_\_\_<54>  
**a. The logical view**b. The process view  
c. The physical view

11. Which diagram equivalent to a sequence diagram?<56>  
a. Deployment diagram  
b. Activity diagram  
c. State machine diagram  
**d. Collaboration diagram**

58. In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow "John:Doctor". Which of the following is correct expression?<54>  
a. An actor named "Doctor"  
b. An object named "Doctor" whose class is "John"  
**c. An object named "John" whose class is "Doctor"**d. An object named "Doctor"

43. Which of the following diagram is NOT an structural diagram  
a. Class diagram  
b. Deployment diagram  
c. Component diagram  
**d. Sequence diagram**

24. Asynchronous message invocation can be expressed in sequence diagrams. **T**

25. Conditional branching can be represented in sequence diagrams. **T**

26. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram **T**

#Sequence diagrams do not describe loops in a message exchange process False

\*QN=13 (10264) Which is the following diagram called?  
  
a. Class diagram  
b. Component diagram  
**c. Sequence diagram**  
d. Package diagram  
e. State Machine diagram

QN=21 (10281) In UML 2.0, Which of the following is TRUE?  
a. Sequence Diagram is derived from use case study scenarios.  
b. Sequence Diagram is outline of activity's data and control flow between related objects.  
c. Sequence Diagram describes the life cycle of an objects using a finite state machine.  
**d. Sequence Diagram describes time sequence of messages passed between objects in timeline.**

14. When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development?<210-216>  
a. Component-based architecture  
**b. PAC architecture**   
c. Message-based architecture  
d. MVC architecture

78. Which of the following is a PAC architecture benefit?<213>  
a. Support for concurrency where multiple agents are running in parallel in different threads or different devices or computers.  
b. Easy to plug-in new agent or replace an existing one.  
c. Support of multi-tasking and multi-viewing  
**d. All of the others**e. Support agent reusability and extendsibility

70. The PAC architecture is a hierarchically structured sofware architecture  
**a. True**b. False

69. The abstraction and presentation components in a PAC agent do not talk to each other directly  
**a. True**  
b. False

QN=43 (10528) When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose?  
a. MVC architecture  
**b. PAC architecture**  
c. Pipe and Filter architecture  
d. Main-Subroutines architecture

19. Which of the following is one limitation of **Client/Server architecture**?<223>  
a. Reusability of server component  
b. Separation of responsibilities such as user interface presentation and business logic process  
**c. Server availability and reliability**

33. Which of the following is NOT an architecture style in hierarchical architecture?<156>  
**a. Client-Server architecture**   
b. Main-Subroutine architecture  
c. Virtual machine architecture  
d. Layered architecture

41. In Client-Server architecture style, there are follow types:<223 224>  
A- Thin-client, Fat-server  
**B- Thin-client, Fat-client**  
C- Fat-client, Thin-server

42. In Thin-client type, the server includes which of the following processing <224>  
A- Presentation processing, Business Logic Processing  
B- Presentation processing, Data storage Processing  
**C- Data storage processing, Business Logic Processing**

43. In Fat-client type, the server includes which of the following processing  
**A- Presentation processing, Business Logic Processing**B- Presentation processing, Data storage Processing  
C- Data storage processing, Business Logic Processing

The interaction oriented software architecture decomposes the system into\_\_\_. Which is the best choice?  
A. 2major partitions- Client and Server.  
B.4 Major partitions - Service consumer, Service Provider, Service Registry and Networks.  
**C. 5 Major partitions - Stub, skeleton, client, Server and Bridge.**D. 3 major partitions - Data module, Control module, Presentation Module.

6. Client-server architecture is general is better availability than the multi-tier model  
A- True **B- False**

77. Client-server architecture in general is more scalable than the multi-tier model  
a. True  
**b. False**

1. Which of the following is NOT the benefit of multi-tier architecture style?  
A- Availablity  
B- Scalability  
C- Load balancing (correct)  
D- Reliability

20. Which of the following is limitation of **message-driven architecture**?<193>  
**a. Capacity limit of message queue**   
b. Supporting batch processing.  
c. Supporting loose coupling  
d. Providing scalability and reliability of message delivery

83. Coupling in message-driven architecture is even looser than in event-driven architecture  
**a. True**  
b. False

QN=37 (10450) The limitation of message-driven architecture over event-driven architecture is which of the following?  
a. Asynchronous invocation  
**b. Capacity of message queue.**c. Difficult to test and debug  
d. The coupling between sender and receiver is looser because there are no time constraints dependency

21. When will you apply the **Batch Sequence architecture**?<118>  
**a. Developing a system where each sub-system reads related input files and writes output files.**   
b. Developing a system which needs to maintain an output data at a stable level  
c. Developing a system which can be broken into a series of processing steps over data streams.

85. Which of the following statement is TRUE?<118>  
a. One of limitations of Pipe and Filter architecture is that does not support for sequence processing  
b. Batch Sequence architecture and Pipe and Filter architecture are both do not support for parallel processing  
**c. One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces**

QN=24 (10328) Which of the following statement is TRUE?  
a. One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.  
**b. One of benefits of Batch Sequence architecture is that it supports both sequential and parallel execution.**

63. Which of the following are not benefits of batch sequential?<118>  
a. Concurrency  
b. Interactive  
c. Incremental  
d. Exchangeable  
e. None of the above  
**f. All of the above**

23. Which of the following is one of advantages of Component-Based architecture?<260>  
a. Not many component-oriented design tools are available.  
b. Easy to find suitable available component to reuse.  
**c. Productivity for the software development and future software development**   
d. Adaptation of component is always simple.

Which of the following is the correct statement about Component-based architecture?  
A- it divides the system into 3 partitions: Model, View and Controller  
B- it divides the system into 2 partition: Event and Event Listener  
**C- it divides the problem into sub-problem each associated with component partitions**D- it divides the system into sub-system which will be deployed

- Which of the following is the main motivation of Component-based architecture?  
A- Component usability  
**B- Component reusability**  
C- Component reliability  
D- Component security

6. Service-oriented architecture is stateless, while component-based architecture is not.  
a. True.  
**b. False.**

Which of the following is a INCORRECT description about component in Component-based architecture? | C. A Component is NOT a modular.

Which of the following is a benefit of component-based architecture? | C. Independency and flexible connectivity of components

QN=52 (10578)Which is the reason of the increase of overall system reliability when you apply component-based architecture? | The reliability of each individual component enhances the reliability of the whole system via reuse.

Which is the reason when you apply component-based architecture, overall system reliability will be increased?|You could increase the reliability of each individual component in your own way.

QN=54 (10585) Which of the following is a benefit of component-based architecture?  
**a. Independency and flexible connectivity of components**b. Easy to find suitable available components to reuse.  
c. Adaptation of components is always an issue.  
d. Many component-oriented design tools are available.

When you are request to maker a system which can be used be users who work on different sites. It’s required that the system security attribute is high because of its working domain requirement. There are about 100.000 to 500.000 users using the system at the same time. Which architecture will you choose to apply for the system development? | Component-based architecture style

25. Which of the following is a limitation of Layered architecture?<167>  
**a. Lower runtime performance**b. Incremental software development  
c. Promotion of portability  
d. Enhanced flexibility

4. Component deployment is a good practice in a layered architecture.  
**A- True (correct**)  
B- False

12. Only directly adjacent layers can invoke each other's methods in a layered architecture.  
A- True  
**B- False (correct)**

QN=33 (10409) Which of the following is NOT the limitation of layered architecture?  
**a. Incremental software development based on increasing levels of abstraction.**  
b. Exceptions and error handling  
c. Breach ( conflict ) of interlayer communication may cause deadlocks  
d. Lower Runtime performance

QN=34 (10437) With an application that has clean divisions between core services, critical services, user interface services.... Which architecture style will you apply?  
a. Virtual Machine architecture  
b. Master-Slaves architecture  
c. Main-Subroutines architecture  
**d. Layered architecture**

**.There is data sharing between all layers in a layered architecture | False**

Component-based technology is a suitable technology to implement layered architecture. | ***True***

The application domain of the layered architecture is | All of the others ( Any system that can be divided, Applications that have a number of classes, Applications that have clean divisions)

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | A client's request or a response to client must go through potentially several layers.

U08-Q051::Which of the following is not the benefit of layered architecture? | Runtime performance

#In **Layered architecture**, the interface of each layer encapsulates \_\_.All detailed service implementations in the current layer and the interfaces of the layers below.

User interface Evaluation does NOT focus on which of following features| a. **Only the tailor –able of the user interface**

In user interface evaluation step, we should focus on what| c. **The usability of the interface**

Which of the following is a limitation of component architecture| a. **Adaption of components**

102. Which of the following is not a benefit of component architecture?<260-262>  
**a. Performance**   
b. Interactivity  
c. Evolution- adaptability  
d. Reusability

A component architecture can be derived from use case analysis and business concept diagrams| **a. True**

which of the following is not a benefit of component architecture? | **Concurrency**

.SAPCO stands for which| It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other

29. The acronym SAPCO is used for which of following purpose?<315>  
a. Describing the Easy to use attribute of user interfaces  
**b. Describing the Satisfactory principles of user interface**c. Describing the User interfaces development process  
d. Describing the Structure of user interfaces

The acronym SAPCO is used for which of following purpose? | **Describing the Easy to use attribute of user interfaces**

Agents in the repository architecture normally do not talk with each other directly, except though the data store |True

91. Which of the following is not a benefit of repository architecture?<149, 150>  
a. Independent agents  
b. Reusable agents  
**c. Concurrency**d. Loose coupling

34. Which of the following is the limitation of Repository Architecture Style?<142>  
a. Reduce the overhead of transient data between software component  
b. System scalability and reusability of agents.  
**c. Data store reliability availability is a very important issue**

Which of the following is the limitation of Repository Architecture |**StyleHigh dependency between data structure of data store and its agents.**

Which of the following is the limitation of Repository Architecture | **StyleOverhead cost of moving data on network if data is distributed**

22. Repository architecture design could NOT be object-oriented design  
**A- True**  
B- False

23. Agents in the repository architecture normally do not talk with each other directly, except thought the data store.  
**A- True (correct).**  
B- False

QN=28 (10392) In the Repository architecture, Said that the client control the logic flow means what?  
**a. The software component agents control the computation, request and update data on repository actively.**  
b. The software component agents do not control the computation; they request the data on repository actively.  
c. The software component agents do not control the computation; they receive the updated data notification from repository.  
d. The software component agents control the computation, request the data of the repository and receive the updated data notification.

36. Which of the following is NOT a buffer- based software architecture ?<187 - view all section>  
**a. Peer-to-peer connection**b. Publish-Subscribe Messaging(P&S)  
c. Point-to-Point Messaging(P2P)

37. Which of the following is a buffer- based software architecture  
a. Peer-to-peer connection   
**b. Publish-Subscribe Messaging(P&S)**c. Event-based Implicit Innovation

The buffered message-based software architecture breaks the software system into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | three partitions\: message producers, message consumers, and message service providers#

38. In UML 2.0, which diagram derived from use case scenarios?<49>  
a. Deployment diagram  
b. Sequence diagram  
**c. Use-case diagram**d. Object diagram  
e. Package diagram

In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline| e. Sequence Diagram

57. In UML 2.0 Which of the following is true?<54>  
a. Sequence Diagram there is no way to specify concurrencies  
**b. Sequence Diagram both concurrencies and loops can be specified**c. Sequence Diagram concurrencies can be specified but not loops  
d. Sequence Diagram there is no way to specify loops

40. Which of the following is NOT the benefit of multi-tier architecture style?<224>  
A- Availability  
B- Scalability  
**C- Load balancing**D- Reliability

Which of the followings is a style of distributed architecture? | **Multi-tier architecture**

Which of the followings is a style of distributed architecture? | **Master-Slave architecture**

47. Which of the following notations is used to support the logical view?<59>  
a. Sequence diagram  
b. Collaboration diagram  
c. State diagram  
d. All of the above

Which view in �4+1� view model indentifies software modules and their boundaries. Interfaces, external environment, usage scenarios, etc. **Logical view**

Deployment diagrams are used to support the physical view **True**

Which of the following notations is used to support the physical view **None of the others**

The stakeholders of physical view are? **| System Admin**

49. Which of the following are benefits of OO design?<109>  
a. Ease of code reuses.  
b. Well-supported by programming tools.  
c. Information hiding.  
d. Real-world problems mapping.  
e. All of the above.

50. Which of the following are features of OO methodology?/<209>  
a. Concurrency  
b. Interactivity  
**c. Inheritance**   
d. Exchangeability

Typical OO languages include the following: | All of the others

C is a popular OO programming language | False

52. Polymorphism implies the following: < knowledge of OOP, need review>  
a. The same operation might be have different at runtime  
b. The invocation of a method is determined at runtime.  
c. Separate the abstraction interface from concrete implementation.  
d. All of the others

53. Which of the following are considered as Runtime attribute?<10>  
a. Time to Market, Availability, Security, Perfomance  
b. Availability, Security, Testability, Portability  
c. Availability, Security, Performance, Portability  
**d. Availability, Security, Performance, Usability**

Usability belongs to which of the following quality attributes group? | Runtime attributes

60. Which is not a structure which can be described in a software architecture?  
a. Dynamic structure  
b. Deployment structure  
c. Static structure  
**d. Operation structure**  
e. Management structure

The constituent elements of software architecture are software elements and their connections. | False

Software architecture design involves many software design methodologies and architecture styles. | True

Software architecture is a static software structure description. | False

Software architecture = software architecture styles. | False

Software architecture design is based on the software requirement specification. | True

Software architecture is concerned only with functional requirements|False

ADL is used only for software architecture specification | False

Chapter 3 of this book, on “models for software architecture”, has nothing to do with user interfaces described in this chapter. | False

70. Based on connector's information carrier, the connectors in software architecture might be classification into \_\_\_\_\_\_\_\_\_\_\_\_\_\_<27c>  
a. One-Initiator, Two-Initiator, Programmed, Event-driven  
**b. Variable, Environment resource, Method, Message**c. Signature-based, Protocol-based  
d. Blocking, Non-blocking

Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

Batch sequential architecture is general more time efficient then pipe and filter | False

Both Sequential and Parallel processing are supported by  
A- All of the others  
B- Reposipirity Architecture  
**C- Pipe and Filter Architecture**

Java can be used to implement a pipe and filter design system. | True

Sequential flow control can be predetermined in pipe and filter. | True.

The control flow in pipe and filter is explicit. | True

62. Which of the following are not benefits of pipe and filter?<126>  
a. Concurrency  
**b. Interactive**   
c. Incremental  
d. Exchangeable  
e. None of the above  
f. All of the above

Which is NOT the way to make the data flow in Pipe and Filter architecture| Leave data in a center repository

You will apply the batch sequential architecture when?  
**A- Developing a system where intermediate file is a sequential access file**  
B- Developing a game application  
C- Developing an order online processing system

13. Which of the following architecture is suitable for the embedded system software design?<127>  
a. Pipe and filter architecture   
**b. Process-Control Architecture**c. Batch- sequence architecture

74. When will you apply the Process-Control architecture?<128>  
**a. Developing a system which needs to maintain an output data at a stable level.**b. Developing a system which can be broken into a series of processing steps over data streams.  
c. Developing a system where each sub-system reads related input files and writes output files.

77. Which of the following is one of distributed architecture?<234-6>  
a. Black-board architecture  
**b. Service Oriented architecture**   
c. Repository architecture  
d. Virtual Machine architecture

83. Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following?<238-279>  
a. Support of new standards such as XML  
**b. Allows stateful service**c. Platform independent

12. Which of the following is NOT benefit of distributed architecture?<243>  
a. Supports multiple independent argents  
b. Loose coupling of modules  
**c. Testability**  
d. Scalability

99. Which of the following is not one of the benefits of distributed architecture?<243>  
a. Supports multiple independent agents  
b. Scalability  
**c. Supports multiple views**  
d. Loose-coupling of modules

100. Which of the following **is not** a typical style of distributed architecture?<222-243>  
a. Client-server  
**b. Hierarchical structure**c. Broker  
d. SOA

65. Which of the following **is NOT** a typical style of distributed architecture?  
a. SOA  
b. Multi-tier  
**c. MVC**  
d. Broker

The important features of a distributed architecture are \_\_\_\_\_\_. Which is the best choice?  
A. service location transparency  
**B. all of the others**  
C. Services availability  
D. Services reliability

QN=48 (10540) Which of the followings is a style of distributed architecture?  
**a. Service Oriented architecture**b. Main-Subroutines architecture  
c. Master-Slave architecture  
d. Black-board architecture

5. Which of the following if limitation of Non-buffered Event-Based architecture?<186>  
a. Reusability of components  
**b. Reliability and overhead of indirect invocations**  
c. System maintenance and evolution  
d. Possibility of parallel execution

The below image is a snapshot of which architecture styles following? <201-210>  
a. MVC architecture   
b. Repository architecture  
c. PAC architecture  
**d. Event-based architecture**

Which of the following are benefits of Non-buffered Event Based architecture?  
A- Support Test and Debug the system, Tight coupling between event sources and their listeners  
B- Independency and flexible connectivity, Reliabity  
C- Support Test and Debug the system, Loose coupling between event sources and their listeners  
**D- Framework availabity ,Reusablity of components, Possibility of parallel execution**

84. In Non-buffered Event-based architecture, how many partitions a system could be broken into?<179>  
a. 4 partiktions  
b. 3 partitions  
**c. 2 partitions**

2. Event-based architecture is difficult to test and debug  
**A- True (correct)**B- False

11. Event-based architecture style is a buffered architecture  
A- True  
**B- False (correct)**

67. Event-based architecture is appropriate for a compiler in an IDE design  
**a. False**  
b. True

9. Event-based architecture is a good candidate for interactive systems with graphic user interface.  
**a. True.**b. False.

85. Which is the benefit of MVC<210>  
**a. Multiple views synchronized with same data model**b. Hard to plug-in new or change interface views  
c. Multiple pairs of controllers and views

97. Which of the following is not a benefit of the MVC architecture?< 210-216>  
**a. Supports multiple independent agents**   
b. Provides flexible GUI interfaces  
c. Supports multiple views  
d. Supports loose data coupling

85. Which is the benefit of MVC<210>  
**a. Multiple views synchronized with same data model**b. Hard to plug-in new or change interface views  
c. Multiple pairs of controllers and views

98. Which of the following is a typical design domain for the MVC architecture?< 210-216>  
a. Multiple agents in a distributed system  
b. Hierarchical structure  
**c. Web server site application**   
d. Web client site application

65. Which of the following is NOT a typical style of distributed architecture?  
a. SOA  
b. Multi-tier  
**c. MVC**  
d. Broker

78. Implicit notication is often used in the MVC architecture.  
a. False  
**b. True**

81. Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style  
**a. True**  
b. False

4. The MVC models suggest the separation of the user interface from the logic of the software system?  
**a. True**.  
b. False.

9. The "Look and Feel" feature is well supported in the MVC architecture. **T**

QN=44 (10503) What of the following characteristic do MVC and PAC both have?  
a. Easy to change Data model  
b. Separation of presentation and abstraction  
**c. Support for developing interactive application**

Which is the statement you can describe about MVC architecture style? MVC is now very popular

Which of the following statement is TRUE? | Three-tier is the same as MVC architecture

Which of the below description is a limitation of MVC architecture style?|Does not fit well agent-oriented applications such as interactive mobile and robotics applications

87. Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system?<314>  
a. Decrease reusability.  
b. The business logic and the user interface cannot be modified without affecting each other.   
c. Difficult to maintainability  
**d. The same logic can be accessed by different kinds of user interfaces.**

72. Which of the following statements is TRUE?  
**a. The usability of a user interface is enhanced by consistency and integration.**b. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.  
c. The look and feel of a user interface can be defined by using engineering rules.  
d. A customizable user interface is not a good style since it will confuse users.

85. In user interface design step.User-centered factor consideration means what?  
a. The behaviors of a user interface should not surprise users  
b. User interface should be module-oriened or component-oriented and be able to plug-and-play.  
c. Designers should consider the physical and mental limitations of the humans.  
**d. Designers must take into account the needs, experiences, and capabilities of the system users.**

90. In user interface evaluation step, we should focus on what?  
a. The color of the interface  
b. The type of the interface  
**c. The usability of the interface**

9. Event-based architecture is a good candidate for interactive systems with graphic user interface.  
**a. True**.  
b. False.

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.  
a. True.  
**b. False.**

2. Chapter 3 of this book, on "models for software architecture," has nothing to do with user interfaces described in this chapter.  
a. True.  
**b. False.**

3. User interface refers to static components and their layout, not dynamically displayed information.  
a. True.   
**b. False.**

5. Which of the following is true for implementing the separation of the user interface from the logic of the software system?  
a. Increase reusability.  
b. Eases maintainability.  
c. The same contents can be accessed by different kinds of user interfaces.  
d. The business logic and the user interface can be modified without affecting each other.

6. The look and feel of a user interface can be defined by using engineering rules.  
a. True.  
**b. False.**

7. A customizable user interface is not a good style since it will confuse users.  
a. True.  
**b. False.**

8. The usability of a user interface is enhanced by consistency and integration.  
**a. True.**  
b. False.

94. Which of the following is a disadvantage of hierarchical architecture?<167-173>  
**a. Overhead**   
b. Interface separation   
c. Incremental  
d. Exchangeable

93. Which of the following is not a benefit of hierarchical architecture?<167-173>  
**a. Concurrency**   
b. Interactive   
c. Security  
d. Exchangeable

33. Which of the following is NOT an architecture style in hierarchical architecture?<156>  
**a. Client-Server architecture**   
b. Main-Subroutine architecture  
c. Virtual machine architecture  
d. Layered architecture

29. Hierarchical architecture is a procedure-oriented design paradigm only.  
**A- False**  
B- True

95. Which of the following is one of the benefits of asynchronous architecture?<193-195>  
a. Multiple independent agents  
b. Flexible GUI interfaces  
c. Multiple views  
**d. Loose coupling of modules**

96. Which of the followings is not typical design domain of the asynchronous architecture<186-195>  
a. Multiple agents in a distributed system  
**b. Hierarchical structure**  
c. Web server site application  
d. Java AWT and Swing

The testing of synchronous architecture is more straightforward than asynchronous architecture.  
**A- True**   
B- False

104. Which of the following is true about heterogeneous architecture?<271-293>  
a. There is no mixed architecture style at one abstraction level  
b. Heterogeneous architecture implies increased time efficiency   
**c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture**   
d. None

Which is the purpose of Main-Subroutine Architecture?  
A- To develop subroutines easier  
B- To support object oriented solutions  
C**- To reuse the subroutines**

20. The master-slave architecture is a specialized form of main-subroutine architecture  
**A- True**  
B- False

3. Main- subroutine architecture can also be applied in any object-oriented software design  
A- True  
**B- False**

54. Which of the following is a feature of object oriented methodology?  
a. Concurrency  
b. Exchangeability  
c. Interactivity  
**d. Inheritance**

60. Which of the following are benefits of object oriented design?  
a. Information hiding  
b. Ease of code reuse  
c. Well-supported by programming tool  
d. Real-world prolems mapping  
**e. All of the others**

QN=18 (10306) The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_  
**a. Requirement Specification, Initial logic structure of the system**b. Initial logic structure of the system, system detailed design description  
c. Requirement Specification, system detailed design description

QN=20 (10290) Choose the correct statement  
**a. Object oriented analysis establishes an object-oriented abstract model of the system to be built.**  
b. Object oriented analysis is not concerned with initial domain and problem requirement analysis.  
c. Object oriented development process has 2 stages: Object oriented analysis and Object oriented design.  
d. Object oriented analysis relies on two UML tools : Use-case diagram and activity diagram.

QN=5 (10171) Usability belongs to which of the following quality attributes group?  
a. Implementation attributes  
**b. Runtime attributes**c. Business attributes

QN=6 (10162) Usability refers to \_\_\_\_  
a. The level of independence of the system on software and hardware platforms.  
b. The ability of a system to be available 24x7  
c. The ability to modify the system and extend it conveniently.  
**d. The level of "satisfaction" from a human perspective in using the system.**

1. The constituent elements of software architecture are software elements and their connections. **F**

QN=7 (10218) In a software architecture, a process, object, service or an instance of software component is \_\_\_\_  
**a. A software element**b. A software connector  
c. A software quality attribute  
d. A software constraint

QN=9 (10237) According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be?  
**a. Variable**b. Environment Resource  
c. Method  
d. Message

QN=11 (10212) At software development time, the software element are \_\_\_\_  
**a. Source code modules or files which have been assigned functional and non-functional attributes.**b. The executable version of the project modules and files  
c. Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team  
d. Threads, Processes, Functional Units and Data Units which may run on the same computer or multiple computer across a network

1. The constituent parts the architecture of a system are:  
**a. Its components, connectors, and the rules governing their interactions.**b. Its connectors, concurrency, and the rules governing their interactions.  
c. Its classes, connectors, and the rules governing their interactions.  
d. Its classes, concurrency, and the rules governing their interactions.

QN=8 (10200) In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one )  
a. Direction, Synchronization, Sequence  
b. Direction, Synchronization, Multiplicity  
**c. Direction, Synchronization, Sequence, Multiplicity, Self-descriptive**

QN=10 (10211) Based on connector's synchronization mode, the connectors could be classified into which categories below?  
**a. Blocking connector and non-blocking connector.**b. One-initiator connector and two-initiator connector.  
c. Signature-based connector and Protocol-based connector.  
d. Programmed connector and Event-driven connector.

QN=35 (10441) A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank?  
a. A set of abstraction  
b. A virtual attribute  
c. A virtual method  
**d. A virtual abstraction**

QN=36 (10415) Which of the following is the limitation of virtual machine architecture?  
a. Portability and machine platform independency  
b. Simplicity of software development  
c. Simulation for disaster working model  
**d. Overhead due to the new layer**

QN=38 (10475) Which architecture style supports scalability and reliability better?  
a. Non-buffered Event-based architecture (1)  
b. Buffered message-based architecture (2)  
c. Both (1) and (2) are the same

QN=39 (10463) When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend.  
Among the styles below, which is the architecture style you will choose to apply into your system architecture?  
a. Buffered Message-based Architecture style  
b. Batch-Sequence Architecture style  
c. Virtual-Machine Architecture style  
d. Main Subroutine Architecture style